

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re Application of:**

Yu-Wen Hu

**Serial No.:** To be assigned

**Filed:** February 13, 2001

**For: PRIMER-SPECIFIC AND MISPAIR  
EXTENSION ASSAY FOR IDENTIFYING  
GENE VARIATION**

**Examiner:** To be assigned

**Group Art Unit:** To be assigned

**Attorney Docket No.:** 4757US

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**Preliminary Amendment**

Box Patent Application  
Commissioner for Patents  
Washington, D.C. 20231

Sir:

Before calculation of the filing fee, please amend the referenced application as follows:

**IN THE SPECIFICATION:**

Page 3, lines 2-3, please italicize "et al.";

Page 3, line 4, before "ABI", please insert -An-;

Page 3, line 10, please replace "sequencer, being" with -and were-;

Page 3, line 11, please italicize "et al.";

Page 3, line 14, please italicize "et al.";

Page 3, line 19, please replace “(LiPA)” with --“(LiPA)”--;

Page 3, line 21, please italicize “et al.”;

Page 3, line 24, please replace “polymorphism” with –polymorphisms--;

Page 3, lines 24-25, please italicize “et al.”;

Page 3, line 29, please italicize “et al.”;

Page 3, line 30, please replace “sequencing (i.e.” with –sequencing, for example, --

Page 3, line 31, please remove “)”;;

Page 3, line 32, please replace “resistance” with –resistant--;

Page 4, line 3, please insert a comma after “analysis” and delete “in”;

Page 4, line 4, please replace “particular” with –particularly-- ;

Page 4, line 7, please italicize “et al.”;

Page 4, line 8, please italicize “et al.”;

Page 4, line 9, please italicize “et al.”;

Page 4, line 23, please insert a comma after “sequencing”;

Page 4, line 24, please replace “level” with --levels--;

Page 4, line 25, please italicize “et al.”;

Page 4, line 26, please italicize “et al.”;

Page 4, line 27, please italicize “et al.”;

Page 4, line 29, please replace “infectious” with –infections– and please italicize “et al.”;

Page 4, lines 30-31, please italicize “et al.”;

Page 4, line 32, please italicize “et al.”;

Page 5, line 16, please italicize “et al.”;

Page 6, line 2, please italicize “et al.”;

Page 6, line 3, please italicize “et al.”;

Page 6, line 16, please replace “(ARMS)” with --“(ARMS)”--;

Page 6, line 17, please italicize “et al.”;

Page 6, line 19, please italicize “et al.”;

Page 6, line 23, please italicize “et al.”;

Page 6, line 23, please replace with period with --and-- and delete “It”;

Page 6 line 27, after “sufficient” please insert –enough--;

Page 7 line 6, please italicize “et al.”;

Page 7, line 12, please insert a comma after “activity” and replace “(i.e.” with –for example, –;

Page 7 line 13, please delete “)”;;

Page 7, line 14, please italicize “et al.”;

Page 7, line 19, please insert a comma after “DNA”

Page 7, line 20, please replace “*pyrococcus*” with –*Pyrococcus*-- and italicize “et al.”;

Page 7 lines 22-23, please insert a comma after “*litoralis*)” and italicize “et al.”;

Page 7, line 30, please italicize “et al.”;

Page 8, line 10, please replace “SUMMARY” with –DISCLOSURE–;

Page 8, line 13, please replace “the determination of” with –determining–;

Page 8, line 17, please replace “to detect” with –for detecting–;

Page 8, line 23, please replace “infectious” with –infection–;

Page 8, line 25, please replace “detection of” with –detecting–;

Page 8, line 32, please replace “the determination of” with –determining–;

Page 8, line 33, please replace “comprises the steps of” with –includes–;

Page 9, line 4, please replace “whereby” with –wherein–;

Page 9, line 11, please delete “the step of”

Page 9, line 12, please replace “comprises the steps of” with –includes– and delete “by”

Page 9, line 13, please delete “the”, replace “size said” with –the– , insert –by size-- after “product”;

Page 9, line 14, please delete “step of”;

Page 9, line 15, please replace “comprises” with –includes sequencing the extension products– delete “the step of” and delete “by size”;

Page 9, line 16, please replace “the steps of the extension” with –by size.–;

Page 9, line 17, please delete “products.”

Page 9, line 18, please replace “comprises” with –includes–;

Page 9, line 19, please delete “before step a) the step of”;

Page 9, line 20, after “sequence” please insert –before extending the nucleic acid sequence from a patient sample–;

Page 10, line 3, please replace “the determination of” with –determining–;

Page 10, line 4, please replace “detection of” with –detecting–;

Page 10, line 5, please delete “comprises the”;

Page 10, line 6, please replace “steps of” with –includes–;

Page 10, line 7, please insert a comma after “sequence”;

Page 10, line 8, please insert a comma after “sample”;

Page 10, line 11, please replace “obtaining extension of” with –extending– and replace “whereby” with –wherein–;

Page 10 line 27, please replace “Fig.” with –FIG.–;

Page 10, line 28, please replace “Taq.” with –*Taq*–;

Page 10, line 30, please replace “Fig.” with –FIG.–;

Page 10, line 32, please delete “)”;

Page 10, line 33, please replace “Fig.” with –FIG.–;

Page 11, line 1, please replace “Fig.” with –FIG.–;

Page 11, line 2, please replace “unlabelled” with –unlabeled–;

Page 11, line 5, please replace “Figs.” with –FIGs.–;

Page 11, line 8, please replace “Figs.” with –FIGs.–; and replace “illustrates” with –illustrate–;

Page 11, line 12, please replace “Figs.” with –FIGs.– and replace “illustrates” with –illustrate–;

Page 11, line 16, please replace “Fig.” with –FIG.–;

Page 11, line 22, please delete “there is provided”;

Page 11, line 23, please insert --is provided-- after “(PSMEA)” and delete “the”;

Page 11, line 24, please replace “determination of” with –determining–;

Page 11, line 29, please replace “UR” with -- untranslated region (“UR”)–;

Page 11, line 33, please delete “obtained”

Page 12, line 4, please italicize “et al.”;

Page 12, line 7, please replace “in” with –for–;

Page 12, line 12, please insert –an-- after “wit”;

Page 12, line 13, please replace “condition” with –conditions–;

Page 12, line 15, please replace “discriminative” with –discriminating–;

Page 12, line 19, please delete the comma after “condition”;

Page 12, line 23, please italicize “et al.”;

Page 12, line 25, please italicize “et al.”;

Page 12, line 30, please italicize “et al.”;

Page 12, lines 34-25, please italicize “et al.”;

Page 13, line 1, please italicize “et al.”;

Page 13, lines 2-3, please italicize “et al.”;

Page 13, line 20, please replace “extraordinary” with –extraordinarily-- and replace “to identify” with –for identifying--;

Page 13, line 21, please insert a comma after “variation” and delete “for”;

Page 13, line 22, please insert –and is-- after “molecules,” and replace “to” with –for--;

Page 13, line 27, please replace “dGTP” first occurrence, with –dCTP–;

Page 13, line 34, please replace “(LiPA)” with –(“LiPA”)–;

Page 13, line 35, please replace “(RFLP)” with –(“RFLP”)–;

Page 15, line 1, please replace “Fig.” with –FIG.–;

Page 15, line 3, please replace “Fig.” with –FIG.– and insert --column-- before “T”;

Page 15, line 4, please insert --HCV genotype-- before “1b”;

Page 15, line 5, please replace “Fig.” with –FIG.– and insert -columns- before “I-1”;

Page 15, line 6, please insert --Column-- before “II”;

Page 15, line 10, please insert –HCV-- before “genotypes” and replace “Fig.” with –FIG.– and insert –column-- before “II-1”, “II-2” and “II-3”;

Page 15, line 11, please insert –column-- before “II-4” and insert –Column-- before “III”;

Page 15, line 12, please replace “Taq” with –*Taq*–;

Page 15, line 13, please replace “Fig.” with –FIG.– and insert –column-- before “III-1” and “III-2” and insert –FIG. 1, parts” before “I”;

Page 15, line 15, please insert –of HCV genotypes-- before “1a”;

Page 15, line 32, please replace “Fig.” with –FIG.– and insert –column-- before “I-1”;

Page 15, line 35, please replace “Fig.” with –FIG.– and insert –column-- before “I-2”;

Page 16, line 9, please delete “in”;

Page 16, line 25, please italicize “et al.”;

Page 16, line please delete “Set al.” and insert --*et al.*--;

Page 16, line 31, please italicize “et al.”;

Page 16, line 35, please italicize “et al.”;

Page 17, line 1, please italicize “et al.”;

Page 17, line 6, please replace “Fig. 1-” with –FIG. 1 column–;

Page 17, line 10, please italicize “et al.”;

Page 17, line 14, please insert -for- after “activity” and insert a comma after “activity”;

Page 17, line 15, please replace “(i.e.” with –example,–;

Page 17, line 16, please replace “TDT)” with –(“TDT”)–;

Page 17, line 17, please replace “(i.e.” with –, for example,– and delete “)”;

Page 17, lines 18-19, please italicize “et al.”;

Page 17, line 24, please italicize “et al.”;

Page 18, line 5, please replace “DNA (i.e. primer)” with –DNA, for example, a primer,–;

Page 18, line 6, please replace “Figs. 1, I-1” with –FIG. 1, column I-1--;

Page 18, line 7, please italicize “pfu” both occurrences and replace “1-I” with –FIG. 1, c  
column I-1--;

Page 18, line 8, please italicize “Taq” and replace “1-II” with –FIG. 1, column II-1-- and  
replace “1-III” with –FIG. 1, column III-1--;

Page 18, line 15, please replace “Figs. 2” with –FIG. 2--;

Page 18, line 16, please insert --column-- before “I-1” and insert --column-- before “I-2”;

Page 18, line 17, please replace “Fig. 2” with –FIG. 2-- and insert --column-- before “I-4”  
and insert --column-- before “II-2”;

Page 18, line 21, please replace “Fig. 2” with –FIG. 2--;

Page 18, line 22, please insert –HCV genotype-- before “1a”;

Page 18, line 25, please insert –FIG. 1, column- before “I-1”;

Page 18, line 26, please insert –FIG. 1, column- before “I-2”;

page 18, line 27, please insert –HCV genotype-- before “6a”;

Page 18, line 28, please insert –FIG. 1, column- before “I-3”;

Page 18, line 29, please insert –HCV genotype-- before “6a”;

Page 18, line 31, please insert –HCV genotype-- before “6a” and insert –FIG. 1, column-- before “I-4”;

Page 18, line 32, please insert –HCV genotype-- before “6a” and insert –FIG. 1, column-- before “II-1” and “II-2”;

Page 18, line 33, please insert –HCV genotype-- before “1a”;

Page 18, line 34, please insert –FIG. 1, column-- before “II-3” and “II-4”;

Page 19, line 3, please replace “Fig.” with –FIG.–;

Page 19, line 5, please insert –HCV genotype-- before “6a”;

Page 19, line 13, please replace “dNTPs (i.e. dGTP and dTTP) with –dNTPs, for example, dGTP and dTTP,-- and replace “Fig. 2,” with –FIG. 2, column--;

Page 19, line 14, please replace “Fig. 2,” with –FIG. 2, column--;

Page 19, line 18, please insert –HCV genotype-- before “6a”;

Page 19, line 19, please insert –HCV genotype-- after “template”;

Page 19, line 20, please replace “Fig. 2,” with –FIG. 2, columns--;

Page 19, line 21, please insert –HCV genotype-- before “1a”;

Page 19, line 23, please replace “Fig. 2,” with –FIG. 2, columns--;

Page 19, line 25, please replace “variation or mutation” with –variations or mutations--;

Page 19, line 27, please insert –HCV-- before “genotype”;

Page 19, line 31, please italicize “et al.”;

Page 20, line 4, please replace “Figs. 1,” with –FIG. 1, column-- and insert –FIG.-- after “II-2 and”;

Page 20, line 5, please delete “but”;

Page 20, line 6, please replace “with” with –by-- , replace “Figs. 1,” with –FIG. 1, column-- and insert –FIG.-- after “and”;

Page 20, line 7, please replace “also could” with –could also--;

Page 20, line 16, please replace “Figs. 1,” with –FIG. 1, column--;

Page 20, line 21, please insert –HCV-- after “template”;

Page 20, line 24, please insert –HCV-- after “template”;

Page 20, line 25, please insert –HCV genotypes-- after “between”;

Page 20, line 29, please replace “ dNTPs (i.e.” with –dNTPs, for example,--;

Page 20, line 30, please replace “)” with a comma;

Page 20, line 34, please insert a comma after “Thus”;

Page 21, line 14, please italicize “et al.”;

Page 21, line 15, please italicize “et al.”;

Page 21, line 20, please insert –HCV– before “genotypes”;

Page 21, line 22, please replace “Fig.” with –FIG.–;

Page 21, line 23, please insert –HCV– before “genotype”;

Page 21, line 25, please insert –HCV genotype– before “2a”;

Page 21, line 26, please insert a comma after “variation”;

Page 21, line 28, please insert –HCV genotype– before “2a”;

Page 21, line 33, please replace “to contain” with –having–;

Page 21, line 35, please replace “Fig. 3 B” with –FIG. 3, column B–;

Page 22, line 1, please insert –HCV genotype– before “2b”;

Page 22, line 5, please replace “Fig.” with –FIG.– and insert –column– before “A”;

Page 22, line 7, please insert –column– before “A” and replace –FIG. 3, part A illustrates the different– for “Different”;

Page 22, line 10, delete “in the mix were” and insert –in the mix–;

Page 22, line 11, please replace “(A)” with –FIG. 1, part A–, replace “(A’)” with –FIG. 1, part A’– and insert –HCV– after “Two”;

Page 22, line 13, please replace “(B)” with –FIG. 1, part B–, and replace “B” with –FIG. 1, part B–,

Page 23, line 2, please replace “the identification of” with –identifying–;

Page 24, line 1, please insert –HCV– before “genotypes”;

Page 24, line 2, please replace “Fig. 1,” with –FIG. 1, column–;

Page 24, lines 10, please replace “Fig. 2,” with –FIG. 2, column–;

Page 24, line 13, please replace “versus” with –as compared with–;

Page 24, line 15, please insert –was– after “there”;

Page 24, line 18, please replace “Fig. 2,” with –FIG. 2, column–;

Page 24, line 22, please replace “Fig. 2,” with –FIG. 2, column–;

Page 24, line 25, please replace “Fig. 2,” with –FIG. 2, column–;



Page 25, line 12, please italicize “et al.”;

Page 25, line 16, please insert a period after “achieved” and delete “with the”;

Page 25, line 17, please delete “PSMEA of the present invention.” and replace “big” with –significant--;

Page 25, line 21, please insert a comma after “mutants”;

Page 25, line 35, please replace “mutation” with –mutations--;

Page 27, line 11, please replace “et al”, first occurrence, with –*et al.* and italicize “et al.”, second occurrence;

Page 29, line 6, please italicize “et al.”, both occurrences;

Page 29, line 28, please italicize “et al.”;

Page 30, line 1, please italicize “et al.”;

Page 30, line 31, please replace “Fig. 4,” with –FIG. 4--;

Page 31, line 1, please replace “unlabelled” with –unlabeled--;

Page 31, line 5, please insert a comma after “Accordingly”;

Page 31, line 6, please insert a comma after “(PSMEA)”;

Page 31, line 13, please replace “genotypes” with –genotype--;

Page 31, line 26, please italicize “et al.”;

Page 31, line 27, please italicize “et al.”;

Page 31, lines 28-29, please italicize “et al.”;

Page 31, line 31, please italicize “et al.”;

Page 32, line 4, please insert a comma after “region”;

Page 32, line 22, please replace “three round testing” with –third round of testing--;

Page 32, line 23, insert –the– before isolates, first occurrence;

Page 32, line 31, please insert –those– after “as”;

Page 34, line 4, please replace “labelled” with –labeled--;

Page 34, line 15, please replace “analysed” with –analyzed--;

Page 34, line 31, please replace “specific (i.e.” with –specific, for example--;

Page 34, line 32, please delete “)”;

Page 34, line 35, please insert –the– before “three”;

Page 35, line 3, please replace “Figs.” with –FIGs.--;

Page 35, line 6, please replace "Figs." with -FIGs.-;

Page 35, line 9, please replace "Fig." with -FIG.-;

Page 35, line 10, please replace "Fig." with - In FIG.-;

Page 35, line 25, please replace "ant" with -and-;

Page 36, line 8, please replace "Figs." with -FIGs.-;

Page 36, line 11, please replace "Figs." with -FIGs.- and replace "Fig." with -FIG.-;

Page 36, line 14, please insert -FIG. 6A, part- before "(2)";

Page 36, line 15, please insert -FIG. 6A, part- before "(4)" and replace "Fig." with -FIG.-;

Page 36, line 16, please insert -FIG. 6A, parts- before "(1)";

Page 36, line 17, please insert -FIG. 6A, parts- before "(2)";

Page 36, line 28, please replace "Figs. 6A" with -FIG. 6A, parts-;

Page 36, line 29, please replace "Figs. 6B" with -FIG. 6B, parts-;

Page 36, lines 32-33, please replace "Figs. 6A(2), 6A(4) and 6B(2), (4)" with --FIG. 6A, part (2), FIG. 6A, part (4) and FIG. 6B, parts (2), (4)-;

Page 37, line 4, please replace "Figs." with -FIGs.-;

Page 37, line 6, please replace "Fig." with -FIG.-;

Page 37, line 9, please replace "Fig." with -FIG.-;

Page 37, line 13, please replace "Figs. 7A(1) and 7B(1)" with -FIG. 7A, part (1) and FIG. 7B, part (1)-;

Page 37, line 16, please replace "Figs. 7A(2) and 7B(2)" with -FIG. 7A, part (2) and FIG. 7B, part (2)-;

Page 37, line 19, please replace "Figs. 7A(3) and 7B(3)" with -FIG. 7A, part (3) and FIG. 7B, part (3)-;

Page 37, lines 21-22, please replace "Figs. 7A(4) and 7B(4)" with -FIG. 7A, part (4) and FIG. 7B, part (4)-;

Page 37, line 24, please replace "detection of" with -detecting-;

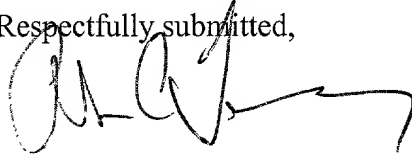
Page 37, line 30, please replace "Fig." with -FIG.-;

Page 38, line 5, please replace "analysed" with -analyzed-;

### Remarks

The application is to be amended as previously set forth. All amendments are made without prejudice or disclaimer. If questions exist after consideration of the foregoing, the Office is kindly requested to contact the applicants' representative at the address or telephone number below.

Respectfully submitted,



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Date: February 13, 2001

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